Mississippi River Ship Channel, Gulf to Baton Rouge, LA

Draft Integrated General Reevaluation Report & Supplemental Environmental Impact Statement

US Army Corps of Engineers®

U.S. Army Corps of Engineers
Mississippi Valley Division
New Orleans District

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ABSTRACT

The U.S. Army Corps of Engineers (USACE), in partnership with the non-Federal sponsor (NFS), the Louisiana Department of Transportation and Development (LaDOTD), propose construction to deepen the existing Mississippi River Ship Channel (MRSC), Gulf to Baton Rouge, Louisiana, project (sometimes referenced as the Baton Rouge, Louisiana to the Gulf of Mexico project). Currently, the project provides deep draft navigation along the lower portion of the Mississippi River from the Gulf of Mexico to the city of Baton Rouge, LA. Specifically, the MRSC allows for deep draft access to the Louisiana ports of Plaquemines, New Orleans, South Louisiana, and Baton Rouge. In 1985, the Supplemental Appropriations Act of 1985, Public Law 99-88 authorized the deepening of the existing channel (with the exception of that portion of the channel within the limits of the Port of New Orleans from its original depth of 40 feet (ft) to a depth of 55 ft in accordance with the Report of the Chief of Engineers dated April 9, 1983, SUBJECT: "Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana" (1983 Report). Construction of the channel was planned in three phases. Among other things, the first phase deepened the channel to 45 ft from the Gulf of Mexico to Donaldsonville, LA, and the second phase deepened the channel to 45 ft from Donaldsonville, LA to Baton Rouge, LA. The third phase planned to deepen the entire channel from the Gulf to Baton Rouge, LA to 55 ft. At the time of this report, the third phase has not been constructed.

The current depth of the MRSC results in the need for vessels such as bulk carriers and tankers to light load to navigate the channel and reach the ports. This results in increased transportation cost. High shoaling rates also result in an increase in sediment deposition, which creates maintenance inefficiencies, and increases dredge cycles. There is an opportunity to reduce transportation costs by increasing the channel depth and minimizing the need for light loading of vessels. There is also the opportunity to increase efficiencies of operation and maintenance.

This integrated draft general reevaluation report (GRR) and supplemental environmental impact statement (SEIS) was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA). The purpose of the reevaluation study and accompanying GRR and SEIS is to evaluate alternative plans (including the no-action plan) to examine whether navigation improvements to deepen the existing MRSC from the current depth of 45 ft up to a depth of 50 ft are warranted and in the Federal. The report details the planning process by describing the existing problems and opportunities, the development and evaluation of alternatives, and the selection of the National Economic Development (NED) plan. Additionally, the report describes the environmental resources in the project area; evaluates the potential adverse and beneficial direct, indirect, and cumulative environmental effects of the alternative plans; and identifies avoidance, minimization, and mitigation measures. The draft report concludes by identifying the Tentatively Selected Plan (TSP) and a plan for implementing the TSP.

The TSP for the next phase of construction is to deepen the MRSC to a depth of 50 ft in the lower Mississippi from river mile (RM) 13.4, above head of passes (AHP), to RM 22, below head of passes (BHP), and to deepen the three crossings, Richbend, Belmont, and Fairview located within the Port of South Louisiana to a depth of 50 ft. This is also the NED plan, which maximizes net benefits to the nation.

Upon completion of the public review period and consideration of all comments received from the public, other agencies (both Federal and non-Federal), Agency Technical Review, and Independent External Peer Review, the report will be finalized with incorporation of pertinent comments.

Please send comments or questions on this draft report to the U.S. Army Corps of Engineers, New Orleans District, Attention: Sandra Stiles, P.O. Box 60267, New Orleans, LA 70160-0267, by e-mail: MSRCAdmin@usace.army.mil or by Fax: (504) 862-1892. Please direct questions by telephone: (504) 862-1583. Notice of Availability of this draft GRR and SEIS appeared in the *Federal Register* (http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=FR). An electronic version of this GRR and SEIS can be found on the USACE New Orleans District website at http://www.mvn.usace.army.mil/About/Mississippi-River-Ship-Channel/.

EXECUTIVE SUMMARY

Description of Report: This report is an integrated draft general reevaluation report (GRR) and supplemental environmental impact statement (SEIS). This report updates the 1981 feasibility study and environmental impact statement (EIS) entitled "Deep-Draft Access to the Ports of New Orleans and Baton Rouge, Louisiana" prepared for the Mississippi River Ship Channel (MRSC), Gulf to Baton Rouge, LA, dated July 1981, and as approved by a Chief of Engineers Report dated April 9 1983, SUBJECT: "Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana" (1983 Chief's Report). The GRR and SEIS describe the formulation and evaluation of alternatives plans considered to address the navigation needs of the MRSC; economic and environmental conditions and potential effects of the alternative plans; environmental mitigation; and project costs and implementation information.

Description of Project: MRSC, Gulf to Baton Rouge, LA, project is a deep draft navigation channel, providing deep draft navigation access to ports located along the Mississippi River in Southeast Louisiana. The project area begins near Baton Rouge, Louisiana beginning at river mile (RM) 232.4 Above Head of Passes (AHP) and extends to the Gulf of Mexico ending at RM 22 Below Head of Passes (BHP) (Figure ES-1). The channel services four of the top ten ports in the United States: the Port of Greater Baton Rouge (Port of Baton Rouge), the Port of South Louisiana, the Port of New Orleans, and the Plaquemines Port, Harbor and Terminal District (Port of Plaquemines). The Port of South Louisiana is the largest port in the nation in terms of tonnage. The non-Federal sponsor (NFS) is the Louisiana Department of Transportation and Development (LaDOTD).

Problems and Need: The 1983 Chief's Report identified the navigation problems resulting from inadequate channel depths and widths to accommodate deep draft vessels. The 1983 Chief's Report identified the need for dry bulk carriers and tankers to light load in order to navigate the channel and reach the ports along the Mississippi, "as smaller, obsolete vessels are replaced with larger and more efficient ships, the percentage of light-loaded traffic will increase under the existing channel dimensions. There is a need to achieve higher economic efficiencies and savings in transportation costs by providing larger navigation channels to the Port of Baton Rouge and the New Orleans." That report serves as the basis for the 1985 authorization to deepen the channel (with the exception of the portion of the channel within the Port of New Orleans which is limited to a 40 ft depth) to 55 ft, and the implementation of the first and second phase of construction to 45 ft. The projection of future vessels and fleet size has continued to grow; therefore, the problems and needs identified in the 1983 Chief's Report still apply today.

Figure ES-1 Project location

The current depths of the MRSC cannot fully accommodate shipping traffic resulting in ships light loading. High shoaling rates result in an increase in sediment deposition, which creates maintenance inefficiencies and more frequent dredge cycles.

The opportunities in the MRSC (mainly to benefit bulk vessels carrying grain and coal, tanker vessels carrying liquid petroleum, and the expanding container ship industry) are: more efficient navigation to reduce light loading; allow for easier maneuvering; and increase efficiencies of operation and maintenance dredging intervals.

Purpose and Scope: The general reevaluation study will examine whether navigation improvements to deepen the existing Federal project for the MRSC are warranted and in the Federal interest. This will be accomplished by assessing existing and future conditions; evaluating related problems and opportunities; developing potential alternatives and evaluating/comparing

the costs, benefits, and feasibility of those alternatives; writing a supplemental environmental impact statement; and identifying a recommended plan. Prior to proceeding with the next phase of construction, a general reevaluation study and an accompanying GRR, and supplemental environmental impact statement (SEIS) is required due to potential changed conditions and assumptions related to the MRSC depth, economic development, and environmental assessments since the 1983 Chief's Report. The study will consider the effects of the alternative plans, including the no action plan, on the natural system and human environment, including economic development.

History, Authority, Prior Studies: The Feasibility Report titled Deep-Draft Access to the Ports of New Orleans and Baton Rouge, Louisiana, dated July 1981 (1981 feasibility report) and Environmental Impact Statement (EIS) recommended that the depth of the Mississippi River navigation channel be increased from 40 ft to 55 ft from Baton Rouge, Louisiana to the Gulf of Mexico, except within the limits of the New Orleans Harbor. The Report of the Chief of Engineers, titled Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana, dated April 9, 1983 for the project was signed and the project was authorized for construction by the 1985 Supplemental Appropriations Act. At the time of the 1983 Chief's Report and the 1985 authorization of the project, the cost sharing requirements for the construction and operation, maintenance, repair, rehabilitation and replacement (OMRR&R) of the project was not specified. Section 101 of the Water Resources and Development Act (WRDA) of 1986 (PL 99-662) specified the cost sharing for this and other similar projects. The cost sharing provisions of Section 101(b)1 of WRDA 1986 were amended by Section 2102(b)of the Water Resources Reform and Development Act of 2014, Public Law 113-121.

During pre-construction planning of the authorized project, a sequence was developed that would implement three construction phases to obtain the fully authorized project. Construction of Phase I was completed in December of 1987 and, among other things, provided a depth of 45 ft from Donaldsonville, LA, RM 181.0 AHP, to the Gulf of Mexico, at approximate RM 22 BHP. During Phase I the Port of New Orleans was deepened to a depth of 35 ft up to 100 ft from the wharf. Construction of Phase II, completed in December 1994, provided a depth of 45 ft from Donaldsonville, LA, (RM 181.0 AHP) to Baton Rouge and included dredging eight river crossings to an equivalent depth, as well as other items of work. Phase III, which has not been constructed as of publication of this report, was originally defined as deepening of the MRSC from the Gulf to Baton Rouge from a depth of 45 ft to a depth of 55 ft.

To proceed with the evaluation of alternatives, the general reevaluation of the current MRSC project was initiated with the issuance of Federal funds, following execution of the Feasibility and Cost Sharing Agreement (FCSA), signed on the 2nd of April 2015 by USACE and LaDOTD, as the NFS.

Within the general reevaluation study at the request of the NFS, the alternative depths are limited to a depth not to exceed 50 ft. If it is determined that deepening of the channel beyond its presently constructed and maintained depth is justified and in the Federal interest, then the GRR will identify and define the recommended plan for construction of Phase III of the project and will identify the need for future construction phases required to achieve the fully authorized 55 ft channel depth.

Affected Environment: The study area, which is located in southeastern Louisiana, is the Mississippi River corridor below Baton Rouge, LA, and the river's major outlet to the Gulf of Mexico, Southwest Pass. This 254.4 mile river corridor runs from RM 232.4, AHP, to RM 22, BHP. The study area includes portions of Baton Rouge, Iberville, Ascension, St. James, St. John the Baptist, St. Charles, Jefferson, Orleans, St. Bernard, and Plaquemines Parishes and other communities and port facilities adjacent to the lower Mississippi River. Four of the nation's top 10 ports for total tonnage occur within the study area combine for a total of 450 million tons annually.

Land adjacent to the river from Venice, LA, to the Gulf of Mexico is included in the study/project area as opportunities for beneficial use of dredge material to the extent that such beneficial use may be accomplished within the Federal Standard. The Code for Federal Standard 33 CFR 335.7 defines the Federal Standard for dredge disposal material as "the alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process or ocean dumping criteria." Also included in the scope of the study, is the municipal water supply for all of Plaquemines Parish (above RM 64), which is put at risk for saltwater intrusion at the water intakes along the river during low water events.

Currently, the river is maintained to a depth of 48 ft Mean Lower Low Water (MLLW) for deep-draft access from RM 22.0 BHP in the Gulf of Mexico to RM 13.4 AHP near Venice, LA. MLLW is the average elevation of the lowest tide recorded at a tide station each day over a 19 year period. There are 11 regularly maintained river crossings between New Orleans, LA, and Baton Rouge, LA. Crossings are maintained at 45 ft Low Water Reference Plane (LWRP) and the material that is dredged is disposed of in deeper parts of the river just downstream from each crossing.

The study area also includes 143,207 acres of previously NEPA cleared beneficial use disposal areas from Venice, LA, to the Gulf of Mexico, where dredged material from operation and maintenance of the Mississippi River is used to create coastal habitat to the extent allowable under the Federal Standard in lieu of open water disposal. To date, the US Army Corps of Engineers New Orleans District (CEMVN) has constructed over 14,819 acres of intermediate marsh in the

lower delta from beneficial use of Dredge Material. The current study includes analyzing an additional 24,054 acres for beneficial use placement within the Federal Standard.

Alternatives Considered: The development of the initial array of alternatives considered alternatives that varied in both depth and width. The alternatives looked at deepening the channel from the existing 45 ft depth to depths of 48 ft and 50 ft, and considered varying widths of the channel between 500 ft and 750 ft. Through the screening process it was determined that the existing channel widths were sufficient, and widening of the channel was not necessary at this time. Therefore, the alternatives in the final array only considered changes in the channel depth.

For the purposes of this study and process of plan formulation and the evaluation of alternatives the MRSC is divided into the following reaches:

The MRSC consists of three routinely dredged reaches to allow for navigation. The first reach is located in the lower Mississippi River reach, and extends from RM 13.4 AHP to RM 22 BHP. This reach includes the portion referred to as Southwest Pass which extends from RM 0 (Head of Passes) to RM 22 BHP (Figure ES-2). This reach is located down river from the jurisdictional limits of the Port of Plaquemines, which jurisdictional limits extend from RM 0 to RM 81.2 AHP.

The second reach, lies within the jurisdictional limits of the Port of New Orleans which extends between RM 81.2 AHP and RM 114.9 AHP (Figure ES-1). This portion of the MRSC is in excess of the authorized depth of 55 ft and does not require routine dredging. The New Orleans Harbor is located within this reach and is maintained and dredged under operation and maintenance of the MRSC. The Rivers and Harbor Act of 1962 included deepening portions of the Port of New Orleans to a depth of 40 ft MLG. However the 1983 Chief's Report and subsequent 1985 Supplemental Appropriations Act did not include authority to deepen the Port of New Orleans beyond the previously authorized 40 ft. Therefore, evaluation of deepening of the Harbor is not included in the alternatives.

The third reach is from RM 115 AHP to RM 232.4 AHP, immediately downstream of the US Highway 190 Bridge in Baton Rouge. The reach consists of crossings (locations where the channel crosses the river between bendways). Of the crossings, 12 require routine maintenance dredging. Three crossings, Fairview, Belmont, and Richbend, lie within the footprint of the Port of South Louisiana, which extends from RM 115 AHP to RM 168.3 AHP, and the remaining 9 crossings are within the footprint the Port of Baton Rouge, which extends from RM 168.3 AHP to RM 232.4 AHP (Figure ES-3).

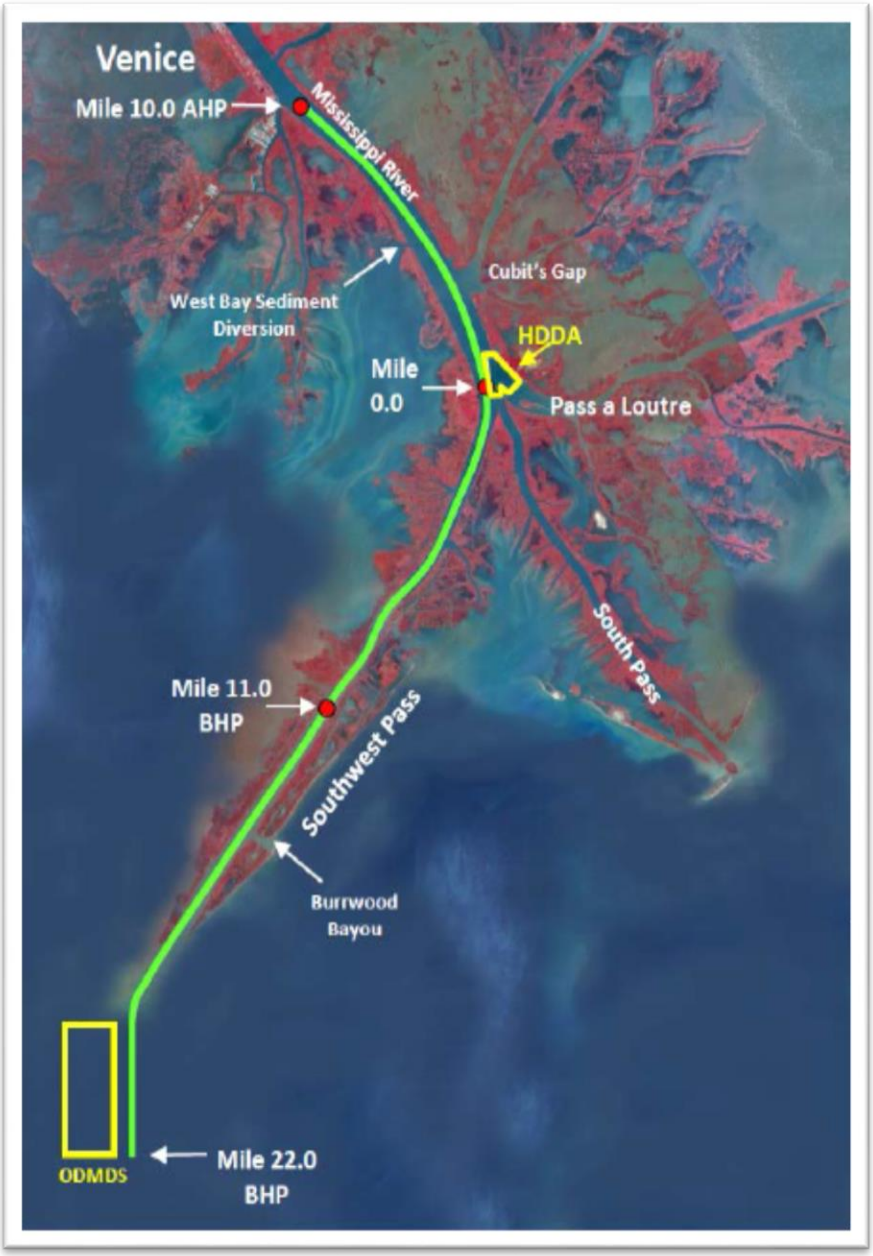

Figure ES-2 RM 22 BHP to RM 13.4 AHP

The three reaches as described above are dredged annually to maintain deep draft navigation. The portions of the river in between RM 13.4 AHP to RM 115 AHP, and in between the crossings historically have depths in excess of 55 ft. Evaluation indicated this will remain the case through the period of analysis. These reaches are not considered in the development and evaluation of alternatives for this general reevaluation study. If future conditions result in changes in this condition, an economic and environmental analysis and reassessment of the project will be needed.

In the event the navigation industry indicates a need, hydrographic surveys may be required to determine if shoaling will prevent safe passage of ships. However, this is not a routine scheduled activity, and is only performed as needed. If the surveys indicate shoaling is limiting the channel depth or width then dredging may be required, however dredging in these reaches has not been required in the last 10 years.

Figure ES-3 Crossings

The final array of alternatives considered for deepening the MRSC considered a combination of depths within these two reaches.

- **Alternative 1 (No action/Future Without Project):** The alternative considers a depth of 45 ft LWRP for the 12 actively maintained crossings and a depth of 48 ft MLLW in the lower Mississippi from RM 13.4 AHP to RM 22 BHP

- **Alternative 2**: The alternative considers a depth of 48 ft LWRP for for the 12 actively maintained crossings and a depth of 48 ft MLLW in Lower Mississippi River from RM 13.4 AHP to RM 22 BHP

- **Alternative 3**: The alternative considers a depth of 50 ft LWRP for the 12 actively maintained crossings and a depth of 50 ft MLLW in Lower Mississippi River from RM 13.4 AHP to RM 22 BHP

- **Alternative 3a**: This alternative considers a depth of 45 ft LWRP for the 12 actively maintained crossings and a depth of 50 ft MLLW in the Lower Mississippi River from RM 13.4 AHP to RM 22 BHP;

- **Alternative 3b**: This alternative considers a depth of 48 ft LWRP for the 12 actively maintained crossings and a depth of 50 ft MLLW in the Lower Mississippi River from RM 13.4 AHP to RM 22 BHP.

During the evaluation of the net excess benefits and benefit to cost ratio, it was recognized that there were benefits to be gained by optimizing the final array of alternatives. Therefore the following additional alternatives were considered during the plan formulation process:

- **Alternative 2a**: The alternative considers a depth of 48 ft LWRP for the 3 crossings located within the footprint of the Port of South of Louisiana and a depth of 48 ft MLLW in the Lower Mississippi River from RM 13.4 AHP to RM 22 BHP. The 9 crossings located within the footprint of the Port of Baton Rouge would remain at 45 ft LWRP.

- **Alternative 3c**: The alternative considers a depth of 48 ft LWRP for the 3 crossings located within the footprint of the Port of South of Louisiana and a depth of 50 ft MLLW in the Lower Mississippi River from RM 13.4 AHP to RM 22 BHP. The 9 crossings located within the footprint of the Port of Baton Rouge would remain at 45 ft LWRP.

- **Alternative 3d**: The alternative considers a depth of 50 ft LWRP for the 3 crossings located within the footprint of the Port of South of Louisiana and a depth of 50 ft MLLW in the Lower Mississippi River from RM 13.4 AHP to RM 22 BHP. The 9 crossings located within the footprint of the Port of Baton Rouge would remain at 45 ft LWRP.

The National Economic Development (NED) Plan: Through the comparison of first construction cost, the increase in annual incremental operations and maintenance cost, and the total average benefits, the NED Plan was selected based on the alternative that provided the greatest net excess benefits to the nation.

In comparing the alternatives as defined, it was recognized that there are benefits to be gained by further dividing the reaches in the river based on the ports located along the MRSC. Therefore, the net excess benefits were calculated for deepening through the Port of South Louisiana to a depth

of 48 ft and 50 ft compared to deepening the full channel (through the Port of Baton Rouge) to depths of 48 ft and 50 ft.

Based on this comparison of alternatives, the NED Plan is described below under the Tentatively Selected Plan.

Environmental Consequences: The true nature of the environmental consequences cannot be fully assessed at this time as the results of two hydraulics models and sediment (containment) sampling are pending and coordination with the resource agencies is still ongoing. However, based on the results of the 1D hydraulic model (Appendix C), and the benefits accrued from the beneficial use of dredged material (Chapter 4), the project is expected to have net positive environmental impacts. It is anticipated that through the efforts taken to avoid wetlands impacts and the beneficial use of dredged material that functionally compensates for unavoidable remaining impacts, the proposed project would not result in overall adverse cumulative impacts to the aquatic environment and human environment in or near the project area. During construction of the Recommended Plan, the beneficial use of dredged material into open water habitat within the Federal Standard is anticipated to result in approximately 1462.5 acres [576.5 average annual habitat units (AAHUs)] of intermediate marsh.

Tentatively Selected Plan (TSP): The Tentatively Selected Plan (TSP) for the next phase of construction, is Alternative 3d . This alternative is to deepen the MRSC to a depth of 50 ft LWRP for the 3 crossings located within the footprint of the Port of South of Louisiana and a depth of 50 ft MLLW in the Lower Mississippi River from RM 13.4 AHP to RM 22 BHP. The 9 crossings located within the footprint of the Port of Baton Rouge would remain at 45 ft LWRP.

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Appendix E: Plan Formulation (Not Used at this time)

Appendix F: Scoping Report

Appendix G: Value Engineering

Appendix H: EDR-OD-01

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LIST OF ACRONYMS, ABBREVIATIONS AND SYMBOLS

AAHUs	Average Annual Habitat Units
ACHP	Advisory Council on Historic Properties
AHP	Above Head of Passes
AM&M	Adaptive Management & Monitoring
ASACW	Assistant Secretary of the Army for Civil Works
ATV	All Terrain Vehicle
BCR	Benefit to Cost Ratio
B/C	Benefit to Cost Ratio
BHP	Below Head of Passes
BLH	Bottomland hardwood
BMP	Best management practices
CAA	Clean Air Act
CEMVN	U.S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District
CEPD	Comprehensive Evaluation of Project Datums
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cfs	Cubic Feet Per Second
CIAP	Coastal Impact Assistance Program
CRMS	Coastwide Reference Monitoring System
CWA	Clean Water Act
CWPPRA	Coastal Wetlands Planning, Protection and Restoration Act
CY	Cubic Yards
DO	Dissolved oxygen
Draft Report	Draft Integrated Feasibility Report and Environmental Impact Statement
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
EPA	Environmental Protection Agency
EQ	Environmental Quality
ER	Engineering Regulation
ESA	Environmental Site Assessment
ESA	Endangered Species Act
FCSA	Feasibility and Cost Sharing Agreement
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration

Final Report	Final Integrated Feasibility Report and Environmental Impact Statement
FPPA	Farmland Protection Policy Act
FRM	Flood risk management
ft	Feet
FWCA	Fish and Wildlife Coordination Act
FWCAR	Coordination Act Report
GIS	Geographic Information System
GRR	General Reevaluation Report
HDDA	Hopper Dredge Disposal Area
HI	Hydrologic Indices
H.R.	House Record
HSI	Habitat Suitability Index
HSDRRS	Hurricane and Storm Damage Risk Reduction System
HTRW	Hazardous, Toxic and Radioactive Waste
Hwy	Highway
I-10	Interstate 10
I-55	Interstate 55
LA	Louisiana
LaDOTD	Louisiana Department of Transportation and Development
LCA	Louisiana Coastal Area
LDWF	Louisiana Department of Wildlife and Fisheries
LERRD	Land, Easements, Rights-Of-Way, Relocation, and Disposal Areas
LIDAR	Light Detection and Ranging data
LNHP	Louisiana Natural Heritage Program
LULC	Land Use/Land Cover
LWRP	Low Water Reference Plan
MBI	Mitigation Banking Instrument
MCY	Million Cubic Yards
MLLW	Mean Lower Low Water
MLG	Mean Low Gulf
MOU	Memorandum of Understanding
MR&T	Mississippi River and Tributaries
MRGO	Mississippi River Gulf Outlet Canal
MRSC	Mississippi River Ship Channel
MRL	Mississippi River Levee
MS	Mississippi
NAAQS	National Ambient Air Quality Standards
NAVD	North American Vertical Datum
NED	National Economic Development
NEPA	National Environmental Policy Act
NER	National Ecosystem Restoration

NFS	Non-Federal Sponsor
NGO	Non-Governmental Organizations
NGVD29	National Geodetic Vertical Datum of 1929
NOAA	National Oceanic and Atmospheric Administration
NOLA	New Orleans
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWLON	National Water Level Observation Network
OCPR	Office of Coastal Protection and Restoration, Louisiana
OMRR&R	Operation, Maintenance, Repair, Rehabilitation and Replacement
OSE	Other Social Effects
PED	Preconstruction Engineering and Design
PL	Public Law
PMP	Project Management Plan
PPA	Project Partnership Agreement
PPT	Parts Per Thousand
Principles and Guidelines	1983 Economic and Environmental Principles and Guidelines for Water and Related Land Implementation Studies
REC	Recognized Environmental Conditions
RED	Regional Economic Development
REP	Real Estate Plan
RM	River Mile
ROW	Right of way
RSLR	Relative Sea Level Rise
SEIS	Supplemental Environmental Impact Statement
SHPO	State Historic Preservation Office
SLR	Sea Level Rise
SMART	Specific, Measurable, Attainable, Risk Informed, Timely
SWP	South West Pass
SWPPP	Storm Water Pollution Prevention Plan
T&E	Threatened and Endangered
TMDL	Total Maximum Daily Load
TSP	Tentatively Selected Plan
TY	Target Year
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WIK	Work-In-Kind
WMA	Wildlife Management Area
WRDA	Water Resources Development Act
WVA	Wetland Value Assessment
USACE	U.S. Army Corps of Engineers

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